ABSTRACT

The present invention provides a frame erasure concealment device and method that is based on reestimating gain parameters for a code excited linear prediction (CELP) coder. During operation, when a frame in a stream of received data is detected as being erased, the coding parameters, especially an adaptive codebook gain g_p and a fixed codebook gain g_c, of the erased and subsequent frames can be reestimated by a gain matching procedure. By using this technique with the IS-641 speech coder, it has been found that the present invention improves the speech quality under various channel conditions, compared with a conventional extrapolation-based concealment algorithm.